

5:5 Review Worksheet

Name _____

Use one of the following strategies to solve each problem:

- a) The Counting Principle
- b) Permutations
- c) Combinations

1. How many ways can you arrange the letters in the word LUCK?

2. Ben, Matt, Becky, Schmuck, Debra and Paige ran in a race. How many different ways can they finish the race?

3. Jennifer had 2 skirts, 3 shirts and 4 pairs of shoes. How many different outfits could Jennifer create using these items?

4. Marcus, Cody, Devin, Ryan and Ali are in an Arm-Wrestling contest. Before the contest begins, they all shake hands with each other. How many handshakes will that be?

5. At Trendel's Taco Shack, a combo meal comes with a main course, a side and a beverage. Main course choices are Tremendous Taco, Beasty Burrito or Exciting Enchilada. Sides are Righteous Rice, Bargain Beans or Crazy Corn. Beverage choices are soda or milk. How many different combos can be created from the menu listed above?

6. In how many different ways can you complete a 15 question True-False test if every question must be answered?

7. Abby, Annie, Kaylin, Olivia and Monica applied for jobs at Trendel's Taco Shack. Mrs. Trendel needs to find a Manager and an Assistant Manager. How many ways can the selection be made?

8. Lizzy has a bobble-head collection. She has 22 bobble-heads. How many different ways can she line up the bobble-heads?

9. How many 5 digit numbers can be made by arranging the numbers 9, 3, 5, 8 and 1?

10. There are 8 students that are running for Class-President and Vice-President. How many ways can the two positions be filled?

11. How many ways can the vowels in the word FAUCET be arranged?

12. Holly wants to redecorate her bedroom. She needs to make several choices. She has 5 paint colors to choose from. She must pick between 3 carpet colors. She must also decide between 4 different quilts. How many different ways can she create a new & improved bedroom?

13. Damian plants a flower garden so he can impress all the ladies with beautiful, fresh flowers. Damian plants tulips, roses, daisies, and lilies. Damian plants all of his flowers in rows. For example, all roses are in the first row. All Daisies are in the second row, etc. How many different ways can Damian line up the rows?